SOIL
ENGINEERING
CONSTRUCTION INC.

June 18, 2024

4820 Opal Cliff HOA
4820 Opal Cliff Drive
Capitola, CA

Gentleman,

Response to the 5/23 Cotton, Shires Review Comments & 6/13 Meeting Discussion:

SEC Construction Procedures for the slope stabilization work at 4820 Opal Cliff follow. In my professional opinion, they offer a safe method to implement the work.

CONSTRUCTION PROCEDURES - The piers will be drilled with a 72,000 lb, 8' wide, track drill (each track is 30" wide with 16' on the ground, ground pressure = 900 lbs/sf). The drill will start with pier #1 (the pier nearest the road at the north end of the pier line) and, to limit slope stability risks, drill alternate, odd numbered, piers which will be drilled, reinforced & placed in two groups of 3 piers each. When the alternate piers up to pier #11 are completed, the remaining alternate piers (#13 thru #27) will be drilled, reinforced & placed in groups of 2 piers each. The drill will then be repositioned to the north end of the pier line and the in-fill piers will be completed by drilling, reinforcing & placing the first six even numbered, in-fill piers in two groups of 3 piers. When the even numbered in-fill piers up to pier #12 are completed the remaining in-fill piers (#14 thru #28) will be drilled, reinforced & placed in groups of 2 piers each.

Once all piers are drilled, reinforced and placed, the grade beam will be excavated. Once the entire grade beam line is excavated, its reinforcing steel will be installed and the structural concrete will be placed.

With the pier and grade beam work completed, the tiebacks will be drilled with a compact portal drill powered by a remote diesel/hydraulic pump. Once about six tiebacks are drilled their high strength steel strands will be installed and the grout fill placed (they will be fracture grouted a day later). The drilling and grouting operations will continue until all tiebacks have been completed. When the grout has cured, the tiebacks will be tested and, when that work is completed, they will be sealed and capped.

SEC confirms that 6 feet of overburden below the footings is sufficient to resist impact on the foundation due to grouting pressures in the bonded zone.

927 Arguello St. Redwood City, CA 94063 (650) 367-9595 Fax (650) 367-8139

The construction equipment and all required materials will be staged in the parking lot on the west side of the condominium. All drill spoils, and the soil excavated to allow construction of the connecting grade beam, will be removed from the construction area on the east side of the condominium as it is exposed and be stockpiled in the parking lot (it will be off hauled as needed).

Thank you,

George Drew

George Drew, P. E.
Soil Engineering Construction
408 812 4355